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Method for adjusting a phase angle of a phase modifier of a transmitting device

*This application is a 371 of PCT/EP04/06078, filed June 29, 2000, which claims priority to Germany application NO. 199 46 669.6,*

*The invention relates to a method for adjusting a phase filed September 29, 1999.*

5 The invention relates to a method for adjusting a phase angle of a phase modifier of a transmitting device. The transmitting device comprises a quadrature modulator and a power amplifier which is linearized via a so-called Cartesian feedback loop with a quadrature demodulator.

T.W  
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- 10 A method according to the preamble of claim 1 emerges, for example, from EP 0 706 259 A1. In the transmitting device emerging from this publication a basic band input signal is supplied to a quadrature modulator via two differential amplifiers. Said quadrature modulator performs quadrature
- 15 modulation of the inphase component and the quadrature phase component of the complex input signal. Power amplification takes place in a power amplifier connected downstream the quadrature modulator. To compensate the non-linearity of this power amplifier a feedback loop is
- 20 provided, generally designated as a Cartesian feedback. In this feedback loop is located a quadrature demodulator which separates the feedback signal into a feedback inphase component and a feedback quadrature phase component. The feedback inphase component is supplied, together with the
- 25 inphase component of the input signal, to a first differential amplifier, connected upstream the quadrature modulator. Correspondingly the feedback quadrature phase component is supplied, together with the quadrature phase component of the input signal, to a second differential
- 30 amplifier. In this way the non-linearities of the power amplifier are compensated via the feedback signal.

In a transmitting device operating according to the Cartesian feedback method it is particularly important that

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